V. REMARKS

Claims 1-4 are objected to because of an informality. Claim 1 is amended to obviate the objection. Withdrawal of the objection is respectfully requested.

Claims 1-4 are rejected under 35 USC 112, first paragraph, for failing to comply with the written description requirement. The claims are amended to obviate the rejection. Withdrawal of the rejection is respectfully requested.

Claims 1-4 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim of the subject matter of the invention. The claims are amended to obviate the rejection. Withdrawal of the rejection is respectfully requested.

Claims 1 and 2are rejected under 35 U.S.C. 102(b) as anticipated by Berchoux (U.S. Patent No. 4,529,321). The rejection is respectfully traversed.

Berchoux teaches a device for the continuous preparation of fine and uniform dispersions of a powdered polymer, based on vinyl chloride, in a solvent. The device includes an inclined turbine, a feed pipe for powder and a feed pipe for liquid. The inclined turbine has at least two rows of blades which prevent the dispersion from returning to the center of the turbine, one row being exactly situated around the center of the turbine and the other being in the outermost part of the turbine. The two rows of blades are separated by a relatively small circular space. The feed pipe for powder and the feed pipe for liquid are located at separate points on the the turbine and respectively on each part of the turbine corresponding to the rows of blades. Each of the feed pipes is used for a single constituent. The feed pipe for the powder emerges in a central zone of the turbine on one row of blades and the feed pipe for the liquid emerges at the external part of the turbine on the other row of blades. A discharge duct for the dispersion is located tangentially with respect to the turbine at the level of the outer blades. Further, the turbine does not need grinders and scrapers.

Claim 1, as amended, is directed to a homogenizer comprising a thrust hydrodynamic bearing and means for applying an external force to an agitation rotor.

Claim 1 recites that the thrust hydrodynamic bearing extends along and about a longitudinal axis and includes a fixed portion and a disc-shaped agitation rotor disposed longitudinally apart from one another. Claim 1 further recites that the agitation rotor has an agitation rotor surface and the fixed portion and the agitation rotor surface are opposingly arranged in a face-to-face manner to define a predetermined bearing clearance between the facially-opposing fixed portion and the agitation rotor surface with the fixed portion formed with at least one longitudinally-extending introduction port to introduce a plurality of mutually incompatible raw liquids in a longitudinally-flowing direction toward the agitation rotor surface and into the bearing clearance to be mixed and agitated in the bearing clearance by rotation of the agitation rotor. Further, claim 1 recites that the agitation rotor surface includes a plurality of grooves arranged radially or spirally along a circumferential direction such that, upon rotation of the agitation rotor, the plurality of grooves aspirate the plurality of the mutually incompatible raw liquids from the at least one longitudinally-extending introduction port and into the predetermined bearing clearance and then cause the plurality of the mutually incompatible raw liquids to emulsify while flowing radially outwardly.

It is respectfully submitted that the rejection is improper because the applied art fails to teach each element of claim 1 as amended. It is respectfully submitted that the applied art fails to teach that an agitation rotor surface includes a plurality of grooves arranged radially or spirally along a circumferential direction such that, upon rotation of the agitation rotor, the plurality of grooves aspirate the plurality of the mutually incompatible raw liquids from the at least one longitudinally-extending introduction port and into the predetermined bearing clearance and then cause the plurality of the mutually incompatible raw liquids to emulsify while flowing radially outwardly. As a result, it is respectfully submitted that claim 1 is allowable over the applied art.

Claim 2 is canceled and, as a result, the rejection as applied thereto is now moot.

Withdrawal of the rejection is respectfully requested.

Claim 3 is rejected under 35 U.S.C. 103(a) as unpatentable over Berchoux in

view of Auerbach (U.S. Patent No. 1,790,967). The rejection is respectfully traversed.

Auerbach teaches an apparatus for preparing emulsions.

Claim 3 depends from claim 1 and includes all of the features of claim 1. Thus, it is respectfully submitted that claim 3 is allowable at least for the reason claim 1 is allowable as well as for the features it recites.

Withdrawal of the rejection is respectfully requested.

Claim 4 is rejected under 35 U.S.C. 103(a) as unpatentable over Berchoux in view of Furukawa (U.S. Patent Application Publication No. 2002/0060950). The rejection is respectfully traversed.

Furukawa teaches an emulsion producing apparatus.

Claim 4 depends from claim 1 and includes all of the features of claim 1. Thus, it is respectfully submitted that claim 4 is allowable at least for the reason claim 1 is allowable as well as for the features it recites.

Withdrawal of the rejection is respectfully requested.

Newly-added claim 5 also includes features not shown in the applied art. The homogenizer has a pair of thrust bearings 31 and 32 provided on the front and back of the agitation rotor 10. In this case, the agitator rotor 10 is naturally positioned in the axial direction between a pair of fixed portions 23 and 24 such that the pressures of the lubricating fluids pressurized in the bearing clearance of the respective thrust hydrodynamic bearings become equal to each other. In other words, the thrust bearings 31 are working as means for applying external force to the agitation rotor in a direction opposite to the longitudinally-flowing direction. Support for this claim can be found in the specification in paragraph [0034].

In view of the foregoing, reconsideration of the application and allowance of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance; the Examiner is invited to contact Applicants' representative at the telephone

number listed below.

Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

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Enclosure(s): Amendment Transmittal
Petition for Extension of Time (two months)

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